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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,338	12/21/2001	Thomas N. Turba	RA5412 (33012/330/101)	1579

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UNISYS CORPORATION  
MS 4773  
PO BOX 64942  
ST. PAUL, MN 55164-0942

EXAMINER

WU, YICUN

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/027,338

Applicant(s)

TURBA, THOMAS N.

Examiner

Yicun Wu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

DIANE D. MITCHELL  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 210

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**III. DETAILED ACTION**

1. Claims 1-20 are presented for examination.

**Specification**

2. This Specification is objected to for the following informalities:

a). The disclosure contains embedded hyperlinks and/or other form of browser-executable code. Applicant is required to delete embedded hyperlinks and/or other form of browser-executable code. Application should be checked throughout for embedded hyperlinks. See MPEP § 608.01.

b) On page 1, line 6, the application number and filing date is missing; and

c) Page 36, line 10 and page 37, lines 2-3, the pending application numbers and filing date are missing

Appropriate action is required.

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**Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al. (U. S. Patent No. 6,366,934) in view of Chau et al. (U.S. Patent No. 6,721,727).

As to Claim 1, Cheng et al. discloses a data processing system having a user terminal coupled to a data base management System via a publically accessible digital data communication network, the improvement comprising:

a. a document containing a plurality of elements formatted in XML (extended markup language) transferred via the digital data communication network to the data base management system (Cheng et al. col. 7, lines 30-41);

b. a document type definition (DTD) which defines the format of the document (i.e. The XML document stored in the

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XML column, can be well-formed (without a DTD) or valid (including DTD) (Cheng et al. col. 14, lines 35-47); and

c. an XML mapping tree (i.e. Parse the DTD and generate its internal tree structure ) (col. 14, lines 45-38-47 and col. 15, lines 47-49) defined by the DTD into which each of the plurality of elements is mapped for use by the data base management system (i.e. Store DTD data into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

Cheng et al. does not explicitly teach publically accessible digital data communication network.

Chau et al. teaches publically accessible digital data communication network) (i.e. Internet) (Chau et al. col. 4, lines 10-23).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cheng et al. wherein the network is publically accessible digital data communication network.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cheng et al. by the teaching of Chau et al. because providing the publically accessible digital data

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communication network allows the improved technique of selecting, retrieving, and storing relational data into XML documents as taught by Chau et al. (Chau et al. col. 2, lines 36 to 38).

As to Claim 2, Cheng et al. as modified teaches a data processing system wherein

at least one of the plurality of elements further comprises an attribute which is recorded within the XML mapping tree (i.e. Store DTD data into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

As to claim 3, Cheng et al. as modified a data processing system wherein

the DTD is transferred to the data base management system via the digital data communication network (i.e. Store DTD data into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

As to claim 4, Cheng et al. as modified a data processing system further comprising a storage space in which the DTD is stored for future use (i.e. Store DTD data

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into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

As to claim 5, Cheng et al. as modified a data processing system wherein the DTD location path is displayed on the user terminal as a window (i.e. a command xmladm as the administration tool) (Cheng et al. col. 8, lines 23-26).

As to claim 6, Cheng et al. as modified teaches an apparatus comprising:

a. an XML document (Cheng et al. Col. 14, lines 35-47);

b. a Document Type Definition (DTD) which defines the format of the XML document (i.e. The XML document stored in the XML column, can be well-formed (without a DTD) or valid (including DTD) (Cheng et al. col. 14, lines 35-47);

c. a publically accessible digital data communication network (i.e. Internet) (Chau et al. col. 4, lines 10-23);

d. a data base management system having an input format different from XML (Cheng et al. col. 14, lines 35-47) responsively coupled to the publically accessible digital (i.e. Internet) (Chau et al. col. 4, lines 10-23)

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which receives the XML document via the publically accessible digital data communication network (i.e. Internet) (Chau et al. col. 4, lines 10-23) (Cheng et al. col. 14, lines 35-47); and

e. an XML mapping tree responsively (i.e. Parse the DTD and generate its internal tree structure ) ((Cheng et al. col. 14, lines 45-38-47) col. 14, lines 35-47) coupled to the data base management system which parses the XML document in accordance with the DTD into the input format of the data base management system (i.e. Store DTD data into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

As to claim 7, Cheng et al. as modified teaches an apparatus comprising:

wherein an internal representation of the XML element tree corresponding to the DTD is stored for future use (i.e. Store DTD data into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

As to claim 8, Cheng et al. as modified teaches an apparatus comprising:



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wherein the XML document further comprises a plurality of elements and at least one of the plurality of elements has an attribute (Cheng et al. col. 14, lines 35-47).

As to claim 9, Cheng et al. as modified teaches an apparatus comprising:

wherein an internal representation of the XML element tree corresponding to the DTD (Cheng et al. col. 14, lines 35-47) is received by the data base management system via the publically accessible digital data network (i.e. Internet) (Chau et al. col. 4, lines 10-23).

As to claim 10, Cheng et al. as modified teaches an apparatus comprising:

wherein the publically accessible digital data communication system further comprises the Internet (i.e. Internet) (Chau et al. col. 4, lines 10-23).

As to claim 11, Cheng et al. as modified teaches a method of interfacing an XML document to a data base management system having an incompatible input protocol comprising:

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a. transferring the XML document to the data base management system (Cheng et al. col. 7, lines 30-41) via a publically accessible digital data communication network (i.e. Internet) (Chau et al. col. 4, lines 10-23);

b. parsing the XML document into an XML mapping tree in accordance with a Document Type Definition (DTD) corresponding to the XML document (i.e. Parse the DTD and generate its internal tree structure ) ((Cheng et al. col. 14, lines 45-38-47) col. 14, lines 35-47); and

c. presenting the parsed XML document to the data base management system for processing (Cheng et al. col. 10, lines 30-39).

As to claim 12, Cheng et al. as modified teaches a method further comprising the step of saving the internal representation of the XML element tree corresponding to the DTD for future use (i.e. Store DTD data into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

As to claim 13, Cheng et al. as modified teaches a method further comprising wherein the internal representation of the XML element tree corresponding to the

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DTD is retrieved from storage (Cheng et al. col. 14, lines 35-47).

As to claim 14, Cheng et al. as modified teaches a method further comprising 14. A method according to claim 13 wherein the XML document further comprises a plurality 2 of elements and at least one element has an attribute (Cheng et al. col. 14, lines 35-47).

As to claim 15, Cheng et al. as modified teaches a method wherein the publically accessible digital data communication network further comprises the Internet (i.e. Internet) (Chau et al. col. 4, lines 10-23).

As to claim 16, Cheng et al. as modified teaches an apparatus comprising:

a. means for transmitting an XML document (Cheng et al. col. 7, lines 30-41);

b. means for stating a DTD associated with the document (i.e. The XML document stored in the XML column, can be well-formed (without a DTD) or valid (including DTD) (Cheng et al. col. 14, lines 35-47);

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c. means responsively coupled to the transmitting means (Chau et al. col. 4, lines 10-23) for providing data base management functions (Cheng et al. col. 7, lines 30-41); and

d. means responsively coupled to the providing means for composing the XML document from an XML mapping tree and data in the data base management system based upon the DTD (i.e. The XML document stored in the XML column, can be well-formed (without a DTD) or valid (including DTD) (Cheng et al. col. 14, lines 35-47)).

As to claim 17, Cheng et al. as modified teaches an apparatus wherein the composing means further comprises means for storing the parsed DTD for future use (i.e. Store DTD data into the XML\_DTD\_REF table) (Cheng et al. col. 14, lines 35-47).

As to claim 18, Cheng et al. as modified teaches an apparatus wherein the XML document further comprises a plurality of elements and at least one of the plurality of elements has an attribute (Cheng et al. col. 14, lines 35-47).

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As to claim 19, Cheng et al. as modified teaches an apparatus wherein the transmitting means further comprises the Internet (i.e. Internet) (Chau et al. col. 4, lines 10-23).

As to claim 20, Cheng et al. as modified teaches an apparatus further comprises means for displaying a pathway for the DTD storage location (i.e. a command xmladm as the administration tool) (Cheng et al. col. 8, lines 23-26).

**Prior Art Made of Record**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Meltzer et al. (U.S. Patent No. 6,226,675);

Cheng (U.S. Patent No. 6,421,656); and

Cheng (U.S. Patent No. 6,584,459).

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yicun Wu whose telephone number is 703-305-4889. The examiner can normally be reached on 8:00 am to 4:30 pm, Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yicun Wu  
Patent Examiner  
Technology Center 2100

DIANE D. MIZBAHI  
PRINCIPAL PATENT EXAMINER  
TECHNOLOGY CENTER 2100

June 7, 2004